DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	CHERRY POND	Lake Area (ha):	35.04
Town:	JEFFERSON	Maximum depth (m):	1.3
County:	Coos	Mean depth (m):	1.0
River Basin:	Connecticut	Volume (m^3):	350500
Latitude:	44°22'33" N	Relative depth:	0.4
Longitude:	71°30'43" W	Shore configuration:	1.14
Elevation (ft):	1107	Areal water load (m/yr):	11.61
Shore length (m):	2400	Flushing rate (yr^{-1}):	11.60
Watershed area (ha):	847.4	P retention coeff.:	0.53
% watershed ponded:	0.0	Lake type:	natural

BIOLOGICAL:		10 February 2000	1 September 1999
DOM. PHYTOPLANKTON (% TOTAL)	#1	NO WINTER PLANKTON	ASTERIONELLA 40%
	#2	ANALYZED	RHIZOSOLENIA 15%
	#3		DINOBRYON 12%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			8.23
DOM. ZOOPLANKTON (% TOTAL)	#1		POLYARTHRA 56%
	#2		KERATELLA 15%
	#3		ROTIFER SPP. 10%
ROTIFERS/LITER			214
MICROCRUSTACEA/LITER			10
ZOOPLANKTON ABUNDANCE (#/L)			227
VASCULAR PLANT ABUNDANCE			Abundant
SECCHI DISK TRANSPARENCY (m)			1.3 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		3.5	7.1
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m^3) : None
Anoxic volume (m^3) : None

CHEMICAL:

Lake: CHERRY POND
Town: JEFFERSON

	10 February 2000		1 September 1999		
DEPTH (m)	1.0		1.0		
pH (units)	5.6		6.3		
A.N.C. (Alkalinity)	8.5		5.0		
NITRATE NITROGEN	0.12		< 0.05		
TOTAL KJELDAHL NITROGEN			0.80		
TOTAL PHOSPHORUS	0.032		0.021		
CONDUCTIVITY (μmhos/cm)	62.6		37.6		
APPARENT COLOR (cpu)	80		100		
MAGNESIUM			0.84		
CALCIUM			2.8		
SODIUM			3.1		
POTASSIUM			0.62		
CHLORIDE	6		4		
SULFATE	5		2		
TN : TP			38		
CALCITE SATURATION INDEX			3.9		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1999

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	5	2	10	Eutro.

COMMENTS:

1. Cherry and Little Cherry Ponds lie within an extensive wetland plateau in the northwest shadow of the Presidentials. An excellent view of Mount Washington and the Cog Railroad can be seen from the pond.

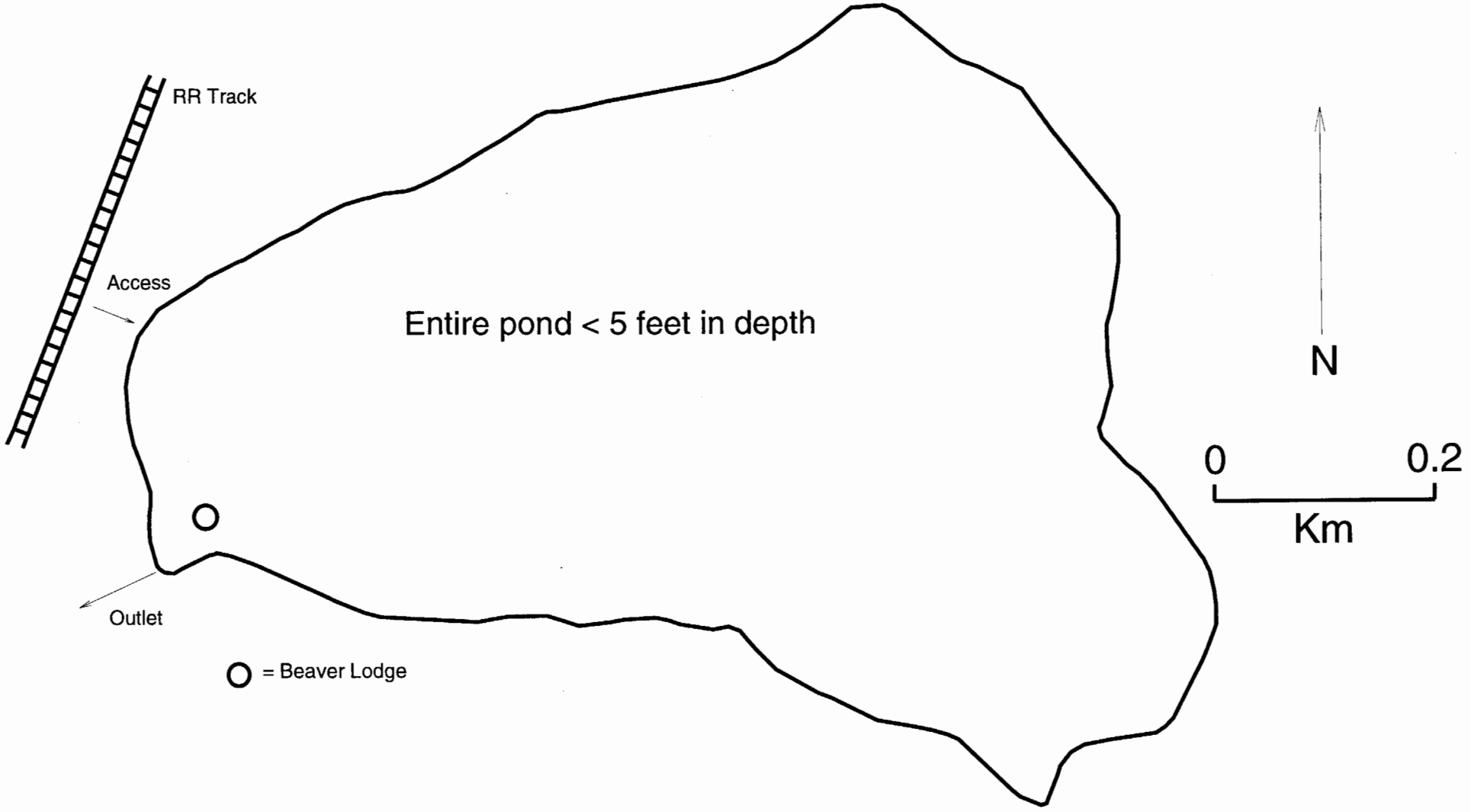
2. The area around the ponds – heath bog and tamarack-black spruce forest – is owned by the Audubon Society and is managed by them and the NH Fish and Game Department as the Pondicherry Wildlife Refuge. The area is a designated National Natural Landmark.

3. This is a very shallow, dark tea-colored pond containing and surrounded by abundant rooted plant growth.

4. The pond is undeveloped but an active railroad track passes adjacent to the pond. There is no public access; we accessed the pond via a 1.5 mile walk down an abandoned railroad right-of-way. Motorboats are prohibited on the pond.

Cherry Pond

Jefferson



FIELD DATA SHEET

LAKE: CHERRY POND TOWN: JEFFERSON
DATE: 09/01/1999 WEATHER: SUNNY & WARM

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	21.5	7.1	79 %
	1.0	19.1	7.1	76 %

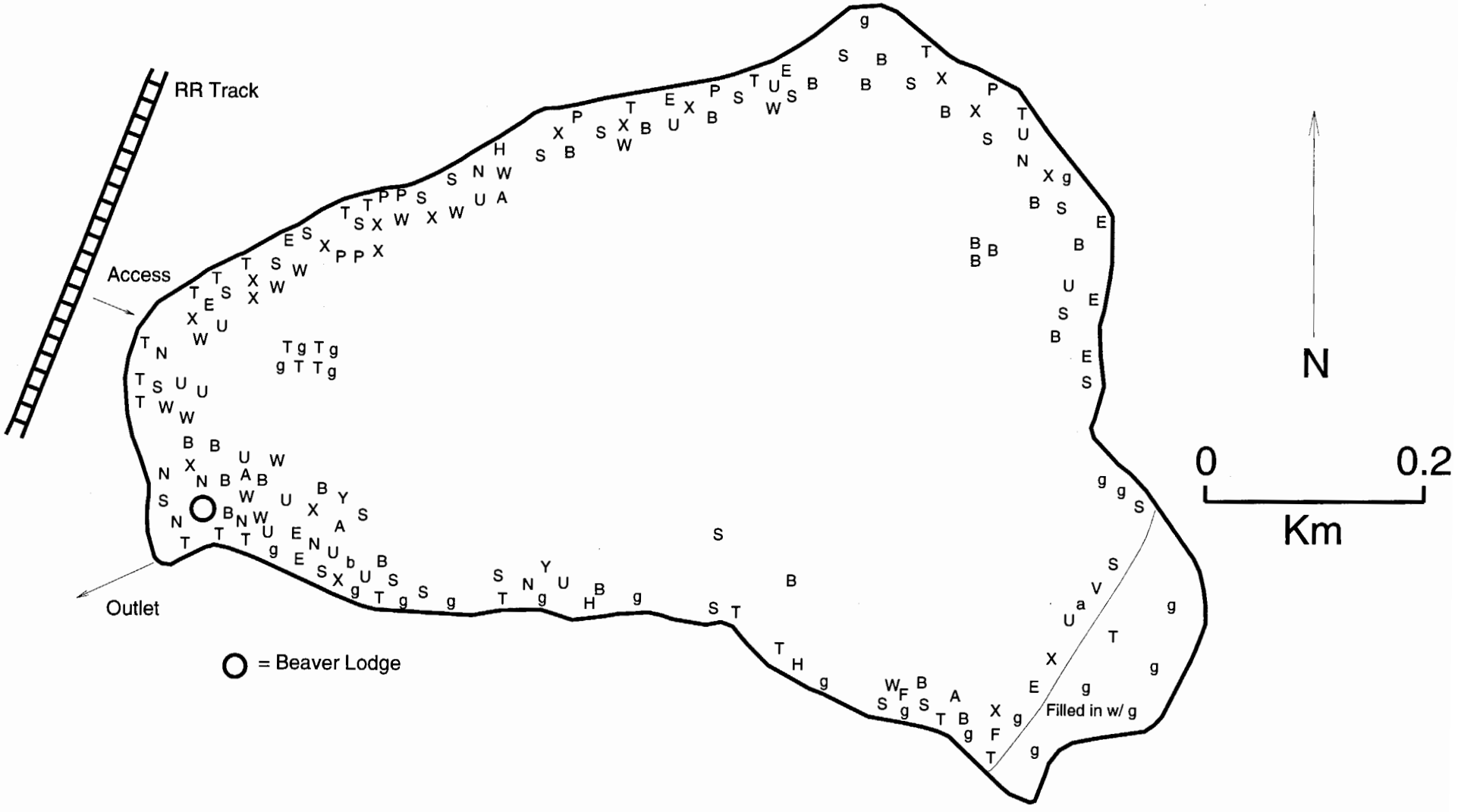
COMMENTS:

BOTTOM DEPTH (m): 1.3 VOB
TIME: 1130

*Dissolved oxygen values are in mg/L

Cherry Pond

Jefferson



AQUATIC PLANT SURVEY

LAKE: CHERRY POND TOWN: JEFFERSON DATE: 09/01/1999

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
T	Typha	Cattail	Common/Abun
g	Myrica gale	Sweet gale	Abundant
S	Sparganium	Bur reed	Abundant
W	Potamogeton	Pondweed	Common/Abun
E	Eriocaulon septangulare	Pipewort	Common/Abun
B	Brasenia schreberi	Water shield	Abundant
X		Bottom growth	Abundant
U	Utricularia	Bladderwort	Common/Abun
A	Sagittaria	Arrowhead	Common
F	Nymphoides cordatum	Floating heart	Scattered
P	Pontederia cordata	Pickerelweed	Scattered
N	Nymphaea	White water lily	Scattered
H	Hypericum	St. John's-wort	Common/Abun
V	Scirpus validus	Softstem bulrush	Sparse
b	Scirpus	Bulrush	Sparse
Y	Nuphar	Yellow water lily	Sparse
a	Cladophora (?)	Algal balls	Sparse
	Eriophorum	Cotton grass	Sparse
	Sphagnum	Peat moss	
	Gramineae	Grass family	
	Cyperaceae	Non-flowering sedge	
	Sarracenia purpurea	Pitcher-plant	Sparse

OVERALL ABUNDANCE: abundant

GENERAL OBSERVATIONS:

1. Most of the shoreline was surrounded by hummocks of sweet gale with a variety of plants (cattails, grasses, sedges, sphagnum, cotton grass, St. John's-wort, etc) interspersed. Beyond this boundary of plants were located the tamaracks and other woody plants.
2. The map shows only the plants in the water. Other plants out of the water are listed above but without a key or abundance. Many of these are bog or acid-loving plants.
3. Plants were present that appeared to be a *Juncus* or a sedge from a distance, but up close had a small narrow blade on top. It is listed as a narrow-leafed *Sagittaria* (see *S. rigida* var. *elliptica* in Fassett).
4. Submerged plants were over the entire bottom; emergents were abundant along the entire shore.
5. Three loons were observed.